

Mahmudul Hasan Nihad

Software Engineer

mahmudulhasannihad@gmail.com | +8801766420056 | [linkedin.com/in/mahmudulhasannihad](https://www.linkedin.com/in/mahmudulhasannihad) | github.com/mahmudulhn

Skills

- Language | C • C++ • JavaScript • JSX • Python
- Front End Development | HTML • CSS • React • Vue • Angular
- Back End Development & Database | NodeJS • Express • MongoDB • Mongoose

Education

BSC. IN COMPUTER SCIENCE AND ENGINEERING | University of Asia Pacific *March 2017 - February 2022*

- Awards: CHAMPION 2018 Intra Department Programming Contest University of Asia Pacific, Dhaka.
- Relevant Coursework: Data Structure, Algorithm, OOP, Db System, System Analysis and Design, Software Development, Artificial Intelligence, Machine Learning, Industrial Training.
- Thesis: [A Deep Learning Based Approach to Image Captioning in Bangla](#)
 - Abstract: Developed a deep learning Bangla image caption generating model with NLP and Computer Vision.
 - Key Contributions:
 - Dataset Utilization & Modification: Merged BanglaLekhImageCaptions 9k+ images & translated Flickr 8k
 - Model Development: Employed ResNet50 feature extracting & LSTM caption generation.
 - Data Preprocessing: Feature extraction, punctuation removal, sequence tagging & vocabulary encoding.
 - Training and Evaluation: Achieved satisfactory accuracy using BLEU scores for evaluation.
 - Impact: Contributed to human-computer interaction, assistive software for the disabled, and surveillance systems.

Projects

Online Shop

- Description: Full stack e-commerce web-app with user & product management, order processing. The app allows users to register, login, view products, place orders. Admin functionalities include product management and order tracking.
- Technologies Used: Node.js, Express, MongoDB, EJS, HTML, CSS, JavaScript, bcrypt, express-session
- Key Contribution:
 - Designed responsive frontend using EJS templates and implemented the backend using Node.js and Express.
 - Implemented user authentication and session management with bcrypt and express-session, and developed middleware for session-based authentication.
 - Created RESTful APIs for product and order management and integrated MongoDB for data storage and retrieval.

Share Places

- Description: MERN stack web app that allows users to share & discover places. Frontend is built with React, while backend is built using Node, Express, MongoDB & Mongoose. The app features user authentication, map integration, photo uploads, enabling users to create, view, share location. REST APIs connected frontend-backend seamlessly.
- Technologies Used: Node, Express, MongoDB, React, CSS, JS, Google Maps API, Multer, bcrypt, JWT, express-session
- Key Contribution:
 - Designed frontend using React for a dynamic user experience and implemented backend using Node.js, Express & Mongoose.
 - Developed user authentication using bcrypt and JWT for secure access and integrated Google Maps API for location services.
 - Created RESTful APIs for managing places and user profiles, connecting the frontend and backend.
 - Implemented photo upload functionality using Multer.

Othello Board Game

- Description: Developed a console-based Othello game using graph algorithms and player interactions.
- Technologies Used: C++, Standard Library (STL)
- Key Contribution:
 - Implemented game logic and state management.
 - Designed move validation and execution algorithms.
 - Developed a user-friendly console interface for gameplay.

Tic-Tac-Toe

- Description: Developed a web-based Tic-Tac-Toe game with a responsive and interactive interface.
- Technologies Used: HTML, CSS, JavaScript
- Key Contribution:
 - Implemented game logic and state management.
 - Designed UI and game board.
 - Added player configuration options.

Competitive Programming

Solved over 500+ challenges on prominent platforms such as [UVA](#), [Codeforces](#), [LightOJ](#), and [VJudge](#). Participated in 10+ national-level onsite contests, showcasing dedication to competitive programming.

- 32nd, 2019 LU IUPC
TEAM NAME: UAP_CODECHEMIST
- 134th, 2019 ACM-ICPC DHAKA REGIONAL
TEAM NAME: UAP_CODECHEMIST